

ABSTRACT OF THE DISCLOSURE

The invention provides an optical flow meter for measuring fluid flow through a pipe which obviates the need for the flow to be seeded with foreign particles. The meter comprises a fiber optic Sagnac interferometer with optical path crossing the flowing fluid. The interferometer measures velocity of the fluid by measuring the phase difference between the two beams propagating in the optical path in opposite directions. Light, which is deflected by the fluid, is collected by optical means at both sides of the optical path for calculation, the scintillating statistics and compensation for light intensity.